

Article

Towards Sustainable Private Labels in an Autonomous Community during COVID-19—Analysis of Consumer Behavior and Perception on the Example of Tenerife

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Abstract: Our study aimed to analyze consumer behavior and perception towards private labels (PLs) in Tenerife as an autonomous community during COVID-19, with special attention given to sustainability aspects. The research was conducted on a sample of 500 adults purchasing PLs using quota selection and the CAWI method. We formulated four research questions related to factors of PL choice, the relationship between frequency of PL purchases, consumers' age and income, perceived changes in PLs, and evaluation of PL products including sustainability. The latter research question referred to such product characteristics as local and environmentally friendly production, organic production, and production according to traditional technologies using only natural ingredients. For a detailed analysis of consumer behavior, we used Pearson's chi-square test, the rho-Spearman correlation coefficient, and cluster analysis. The most important factors for purchasing PL products were lower prices compared to leading brands, attachment to a given chain, and the feeling of safety and trust in PL products. The frequency of purchase of PL food products, except for alcohol, significantly negatively correlates with age, which means that the purchase of PLs from the analyzed product categories decreases with age. The increased availability and improved image and quality of PLs were identified as the most important changes in PLs. PL food products were rated by consumers as fresh, minimally processed and with quality certificates. Environmentally friendly production methods, nutritional value, and origin from an area close to home were also indicated.

Keywords: private labels; sustainable private labels; consumer behavior; sustainability; Tenerife



Citation: Czczotko, M.; Górska-Warsewicz, H.; Laskowski, W.; Rostecka, B. Towards Sustainable Private Labels in an Autonomous Community during COVID-19—Analysis of Consumer Behavior and Perception on the Example of Tenerife. *Sustainability* **2021**, *13*, 7467. <https://doi.org/10.3390/su13137467>

Academic Editor:
Manuela Vega-Zamora

Received: 28 May 2021
Accepted: 1 July 2021
Published: 4 July 2021

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1. Introduction

In recent years, intensive development of private labels (PLs) has been observed [1–4]. Initially, they appeared only as the cheapest equivalents of basic food products [5–7]. Subsequently, assortment development in terms of differentiation and quality improvement has occurred, and PLs have become an important competitive advantage compared to producer brands [6,7]. Currently, the development of sustainable PLs is being observed [8,9]. Retail chains are implementing sustainability principles in production, packaging, product mix, and cooperation with suppliers [10]. Consumer behavior is also changing, and low price is no longer the only purchase factor [11–15].

1.1. Description of PLs

PLs are defined as brands belonging to supermarkets, hypermarkets, discounters, or other stores that, with a lower price and packaging with the retailer's logo, offer quality equal to or similar to that of the leading product [16,17]. According to the Private Label Manufacturers Association (PLMA), PLs are often described as products that include goods

sold under the retailer's brand name [18–20]. PLs are known as private labels [21–25], private label brands [26,27], private brands [28], own labels [3,29], store own brands [30], own brands [30], store brands [31], and distributor brands [31]. Distributors position their PLs in different quality–price segments as economy [32,33], premium [32], value [23], classic [34], or standard [35]. Other classifications distinguish economy, image, innovative, and status PLs [33].

Many success factors for PLs have been described in the literature [33,36,37]. PLs are considered as a tool to compete with other retail chains [2,38–40], create and achieve competitive advantages [41], introduce differentiation strategies [30,36,42], and enhance retailer positioning [36]. In retail strategy, PLs build and strengthen consumer loyalty [30,43,44], personalize the consumer shopping experience [42], and form relationships with consumers [42].

The increase in consumption of PL products has opened up several directions of consumer research [45]. A significant part of the literature is concerned with the factors influencing the purchase decision of PLs, i.e., store image [12,22,36,40,46–48], perceived risk [11,22,36,46–50], perceived quality [11,12,25,30,34,44,50–52], education [22,32], degree of retail modernity, uncertainty avoidance [22], and urbanism [22,32]. Others examine the type of product category, i.e., convenience goods and durables [42], dry products, frozen food, and refrigerated dairy products [43]. PLs are also analyzed in the context of brand equity creation [46], including brand dimensions [53], brand awareness [11,23,30,34,51], in-store communication, distribution intensity, and perceived price [46].

1.2. Development of Sustainable PLs

Over the years, PLs have evolved as a result of the growth of retail chains [27] and changes in consumer preferences [54]. The literature distinguishes periods of PL development known as generations. The first generation includes generic brands, also called no-name, brand-free or unbranded products. This approach was used for basic and functional products of lower quality. Products were offered at a price 20% or more lower than the market leader's brand and the price was the main selection factor. The second generation of PLs referred to own labels or "quasi-brands". These products were of average quality, and perceived to be inferior to products under manufacturers brands. They were offered at prices about 10–20% below the average, and the price remained an important factor in consumer choices. The third generation, called own labels, referred to a "me-too" strategy for products manufactured with technology comparable to that used by the leader. The price of these products was about 5–10% lower than the product produced by the market leader. Quality and price in terms of value for money were factors of the choice. The fourth generation of PLs, i.e., extended or segmented own brands, was introduced through a value-added strategy using innovative technology. The purpose of these brands is to increase the consumer groups, and improve image and differentiation. Their quality is perceived to be the same as or higher than the leading brand, and their price is comparable to or higher than the leading brand [55].

The fourth generation of PLs is currently being developed towards sustainable PLs. They can be described as the results of sustainability and corporate social responsibility activities in terms of new values (environmental and social awareness, defense of labor rights, health) [8,10]. In terms of sustainability, topics such as carbon footprint, packaging and waste reduction, responsible fishing, animal welfare, social responsibility and biodiversity can be analyzed [10]. All these activities aim to improve and strengthen the image of PLs [8], build brand identity, and create a sustainable brand personality [33].

1.3. Markets of PLs and Sustainability

The largest PL markets are located in Western Europe [37]. According to PLMA's 2020 International Private Label Yearbook, PL share in seven European countries was above 40%. These countries include Switzerland (49.6%), Spain (49.5%), UK (46.8%), Belgium (44.0%), Portugal (43.6%), Germany (43.1%), and Austria (42.2%). In the remaining countries, i.e., Norway, France, Sweden, Finland, the Netherlands, Hungary, Slovakia, Czech Republic,

and Greece, the share of PLs is 30–40% [18]. The development of PL markets is accompanied by the implementation of sustainability principles. Sustainable topics, such as reductions in packaging and plastic (Spain, Germany, UK, France, The Netherlands), food waste (UK, Spain, France, Italy), reductions in meat consumption (Germany, The Netherlands), the introduction of alternative means of transport and transport optimization (Germany, Portugal), are being implemented in the strategies of retail chains [10].

In terms of sales volume, the largest PL markets are the UK, Spain, and Germany [18]. These countries are considered the most developed PL markets in the world [18–20]. In the UK, the development of PLs started in 1977 with the lowest-priced products and most basic packaging [56]. Currently, these are products in every product category [57] in three levels (premium, economy, and standard) [14]. The market share of the four largest chains (Tesco, Asda, Sainsbury's, and Morrisons) is 67.7% [10]. Retail in Spain has undergone major changes in recent decades, replacing the traditional model with large-scale retailers (DinoSol, Mercadona, Lidl, Carrefour or Alcampo) [58]. The quantitative changes are accompanied by evolution towards premium products [59–61], online shopping applications, bio stands, and sales of local products [62]. Similarly, the German PL market is dominated by the four largest chains, with a combined market share of over 60%. These are Edeka/Netto, Rewe/Penny, Schwarz Group (Kaufland/Lidl), and Aldi Group [10].

1.4. Tenerife as a PL Market

Tenerife, as the largest and most densely inhabited of the Canary Islands, is an autonomous community [63] with several specific social and economic characteristics. According to the National Institute of Statistics, it is a province wherein the poverty rate reached 28.5% of the population in 2019 [64]. This gives a point of reference for the financial situation of the population and the related consumer and purchasing behavior regarding food. According to the Socioeconomic Confidence and Habits Survey, consumers choose supermarkets outside shopping centers for purchases of fresh products; 43% to 49% of households are concerned [65]. Fruit shops are commonly chosen by 17.5% of households, fruit and vegetable stores by 21.1% and fish stores by 13.7%. Markets, which include central markets, farmers' markets and fishermen's associations, are also regularly visited [66].

PL products are present in the Canary Islands, accounting for 40% of the food market share [37,62]. Almost half of Canarian households (47.5%) buy PL products. By region, Tenerife Sur (19.3%) and Fuerteventura (15.3%) stand out as the areas wherein the majority of households declare they mainly buy PL products, in contrast to La Gomera, La Palma, El Hierro and the northern areas of Tenerife and Gran Canaria, wherein the lowest percentages occur [66]. According to the Habit Survey, ISTAC, the factors determining the PL choice are good prices, offers and promotions, good location, parking, and the attention and willingness of staff [65,66].

1.5. Research Aims and Research Gap

Based on the above arguments, our study aimed to analyze the behavior and perception of consumers regarding PLs in an autonomous community during COVID-19, with special emphasis on sustainability aspects. We formulated four research questions:

1. What factors determine the choice of PLs in the autonomous community during the COVID-19 pandemic? (RQ1)
2. Does the purchase of food groups under PLs depend on the age and income of consumers? (RQ2)
3. What changes in PLs are perceived by consumers? (RQ3)
4. How do consumers evaluate products under PLs in the context of sustainability, including local and environmentally friendly production, and production according to traditional technologies using only natural ingredients? (RQ4)

Our study fills a research gap for three reasons.

First, we chose an autonomous community as a study location to present consumer behavior and perceptions of PLs in the context of sustainable PLs. We decided to choose

an autonomous community because national markets have already been studied for PLs. Published data, including ours, suggest that in large communities, i.e., national markets, the development of sustainable PLs is possible. Consumers are focusing more and more on the quality, innovations, and sustainable production of PLs. Can we see the same trends in autonomous communities? This question guided us in designing this study. This study is a continuation of our research on the PLs in Poland [9,67–70] and UK [9].

Second, we chose Tenerife (one of the Canary Islands belonging to Spain) as an example of an autonomous community. It is one of the few autonomous communities with a population of almost 1 million, with a different national income structure. An additional consideration is the level of unemployment and the fact that almost half of the households buy PL products.

Third, we conducted the study during the COVID-19 pandemic, so the questions concern how consumers behave towards PLs in an autonomous community during COVID-19. Our study fills a research gap as there are no studies in the literature on PLs in smaller populations, i.e., autonomous communities. There is also a lack of research on consumer behavior towards PLs during COVID-19.

2. Materials and Methods

2.1. Ethics Approval Statement

The study was approved by the Ethics Committee of the Institute of Human Nutrition Sciences, Warsaw University of Life Sciences, in Poland on the 31 August 2020 (Resolution No. 36/2020), and was carried out according to the guidelines of the Declaration of Helsinki [71]. All the participants provided their informed consent before participating in the research.

2.2. Data Collection

Our research was conducted on a sample of 500 adults from Tenerife in September 2020. We considered 3 aspects in determining the sample size. First, we calculated the sample size based on a desired level of 15–20 observations per study variable, as recommended and applied in the literature [72,73]. We considered statements rated using a Likert scale. Secondly, we applied a sampling size formula using population size, confidence level, percentage maximum error required and the value corresponding to the required confidence level [74,75]. Third, we intended to ensure that the sample structure represented the population of Tenerife. We have considered the same criteria as in our surveys conducted in the UK and Poland, using the same methodology. In these studies, the sample size was restricted to 500 people [9].

We used the computer-assisted web interviewing method (CAWI), one of the methods in quantitative research in social sciences [76]. The survey was conducted online. The inclusion/exclusion criteria were applied. The questionnaire was addressed only to adults who met the recruitment criterion, i.e., declared that they purchase food products under the PLs category. The question asked was: Do you purchase food products of retail chains under PLs? Respondents who answered “no” were excluded at the initial stage and did not proceed to the survey. In this process, 215 people were excluded. We used quota sampling as the sampling technique, in which participants are chosen based on predetermined characteristics so that the sample has the same distribution of characteristics as the wider population [75,77]. In quota sampling, we applied three characteristics: gender, age, and region of residence of the Tenerife population. For this purpose, we used data from the statistical office [65]. An analogous sample selection approach ensuring representativeness was used in our previous research conducted in Poland and the UK [9]. The questionnaires were distributed via the University of La Laguna and local websites. The options for answers to the income question were based on statistical data, and minimum and average salary as of January 2020 [65].

2.3. Questionnaire Design

The questionnaire consisted of several questions and research problems (Table 1). It was designed based on the literature and our previous research [9,67,78]. This research incorporated closed-ended questions and multiple-choice questions. We selected 8 statements for evaluating factors determining the purchase of PLs [9,13,40,54,67,70,79–85], 6 statements for exploring opinions on PL changes [10,28,54,80,82–84,86–95], and 7 statements for the evaluation of PL products [10,28,67,70,90,92,96]. Ratings were conducted using a 5-point Likert scale: (1) I totally disagree; (2) disagree; (3) I neither agree nor disagree; (4) agree; (5) I totally agree [97,98]. The typical Likert scale is a 5- or 7-point ordinal scale used by respondents to rate the degree to which they agree or disagree with a statement [99]. To assess the length of time for which people have purchased PLs, we used an ordinal scale from our previous surveys. It employs 5 time ranges [9,70]. We assessed the frequency of purchases of PLs for 10 product groups, which is consistent with our previous research and based on the literature review. We used a nominal scale with 5 options: (1) I don't buy at all; (2) I buy rarely; (3) I buy sometimes; (4) I buy often; (5) I buy very often [4,80,83,85].

Table 1. Questionnaire structure.

Questions/Analyzed Areas:	References	Answers
Period of purchase of PL products:	[9,70]	less than 1 month 1 month to 1 year 1 to 5 years 5 to 10 years more than 10 years
Factors for purchasing PL products: wide product range lower prices compared to leading brands high product quality ability to buy the same products repeatedly availability of PL products in every store of a particular chain attachment to a given chain safety and trust feelings towards PL products recognizability of PLs among consumers	[9,54,70,82–84] [9,13,79,82,83,85] [9,13,70,82,84] [9,40,70] [9,54,70,80] [9,40,70,80] [9,13,40,80] [9,67,80,81]	1—totally disagree 2—disagree 3—neither agree nor disagree 4—agree 5—totally agree
Opinions on PL changes: quality improvement increase in the product range visual presentation improvement increase in availability image improvement introduction of organic and natural products	[54,80,82–84,93–95] [54,80,84,86,95] [84,87,88,93] [80,84,89,95] [80,86,87,95] [10,28,88,90–92]	1—totally disagree 2—disagree 3—neither agree nor disagree 4—agree 5—totally agree
Evaluation of food products under PLs: only with natural ingredients with quality certificates, etc. low processed freshness, nutritional traditionally produced, organically produced comes from where I live environmentally friendly in terms of production	[10,28,67,70,90,92,96]	1—totally disagree 2—disagree 3—neither agree nor disagree 4—agree 5—totally agree
Frequency of purchasing PL food products: dairy products cereal products sweets and biscuits bread and bakery products meat and meat products fruits and vegetables fruit and vegetable products frozen food non-alcoholic beverages and water alcohol	[4,80,83,85]	1—I don't buy at all 2—I buy rarely 3—I buy sometimes 4—I buy often 5—buy very often
Indicative share of PL products concerning total food purchases:		0%; 10%; 25%; 50%; 75%; 90%; 100%

Table 1. Cont.

Questions/Analyzed Areas:	References	Answers
Sociodemographic data: Gender—women, men Age (years)—18–25; 26–35; 36–50; 51+ Education—primary and vocational, secondary, higher Place of residence—rural area; cities up to 19,999; cities above 20,000 to 99,999; cities above 100,000 Household income (per person; status on 1 January 2020) Tenerife—Under EUR 950; EUR 950–1800; EUR 1801–2500; EUR 2501–3500; EUR 3500 or more	[65]	choose the right answer

Cronbach's α value was used to measure the variables' internal consistency. In general, a value greater than 0.7 indicates satisfactory reliability. The Cronbach α values of the total questionnaire (0.8743) and the studied constructs were within the recommended values. For example, there were factors determining the purchase of PL products (0.8794), opinions on PL changes (0.8975), and the evaluation of food products available under PLs (0.9331).

2.4. Statistical Analysis

The statistical analysis was performed using Statistica software (version 13.3 PL; StatSoft Inc., StatSoft, Krakow, Poland), including Chi-square test, rho-Spearman correlation coefficient and cluster analysis (CA). We used the Chi-square test to analyze the period of purchase of PL products, and the indicative share of PL products in total food purchases (%). This test was applied to identify statistical significances to find if there is any correlation among nonnumeric variables [100–102].

To describe the correlation between the age and income of consumers and the frequency of purchase of PL food categories (RQ2), the rho-Spearman correlation coefficient (the nonparametric equivalent of the r-Pearson coefficient) was used. Spearman's rank correlation coefficient was applied to describe the strength of the correlation of two variables, e.g., when the features are qualitative, allowing for ordering according to the strength of the feature [103]. Spearman's coefficient is not a measure of the linear relationship between two variables. It assesses how well an arbitrary monotonic function can describe the relationship between two variables, without making any assumptions about the frequency distribution of the variables [104].

For a more comprehensive analysis, we used the multi-dimensional CA, which covers a wide variety of techniques for delineating natural groups or clusters in data sets in similar features [105,106]. The advantage of CA is that it divides the research sample into groups based on similarity. This can be used to create consumer profiles and also to develop classification systems or taxonomies [107]. The clusters (groups of similarity) can be obtained for the objects of interests (which are described by various variables) or for variables identifying the objects [45]. There are several clustering methods, including hierarchical, partitioning, density-based, model-based, grid-based, and soft computing methods. We used the partitioning method, which is to construct "k" data partitions from a database containing "n" objects. Each partition will represent a cluster, and $k \leq n$. This means that it will classify the data into k groups that are similar to each other with respect to the variables being analyzed [108]. The partitioning method as the most popular method of CA [109] uses the K-means algorithm [110,111]. Clusters are formed by evaluating similarities and dissimilarities of intrinsic characteristics between different cases, and the grouping of cases is based on those emergent similarities and not on an external criterion [112]. For each variable applied in our CA we calculated the correlation ratio (CR). We conducted cluster analysis three times for three research questions. We applied the *p*-value as a measure of the probability to identify the statistical significance of the observed difference. Each of these CAs addresses a different issue, which resulted in the most preferred CR and *p*-value:

- RQ1—for description of factors determining the choice of PLs; 8 factors, 4 clusters (CR = 0.48–0.90; p -value 0.0001);
- RQ3—for description of changes in PLs perceived by consumers; 6 statements, 4 clusters (CR = 0.72–0.88; p -value 0.0001);
- RQ4—for evaluation of products available under PLs in the context of sustainability; 8 statements, 4 clusters (CR = 0.48–0.90; p -Value 0.0001).

2.5. Result Presentation

We have presented the results of our study in the order corresponding to the research questions, including a general description of consumer purchase behavior. The structure is as follows:

- Section 4.1—description of consumer purchase behavior;
- Section 4.2—QR—description of factors determining the choice of PLs;
- Section 4.3—QR2—description of the relationship between age and income of consumers and PL purchases by product groups;

2.6. Sample Characteristics

The characteristics of the respondents are presented in Table 2. The survey included respondents, mainly with secondary or higher educations. There were more females (52.4%) than males among respondents, most of them aged 36–50 (29.6%) and 51 and above (28.4%). Nearly 40% of respondents (39.4%) live in cities of up to 19,999 people and 36% live in cities of more than 20,000 to 99,999 people. In terms of income, 30.6% of respondents received a total monthly income of EUR 1801 to 2500 for a person in the household. More than 73% of respondents had purchased PL products for more than 1 year, including more than 50% for at least 10 years.

Table 2. Sample structure ($n = 500$).

Characteristics	Category	Number of Respondents	Percentage
Gender	Women	262	52.40%
	Men	238	47.60%
Age	18–25	78	15.60%
	26–35	132	26.40%
	36–50	148	29.60%
	51+	142	28.40%
Place of residence	Rural area	15	3.00%
	Cities up to 19,999	197	39.40%
	Cities above 20,000 to 99,999	180	36.00%
	Cities above 100,000	108	21.60%
Education	Primary and vocational	30	6.00%
	Secondary	258	51.60%
	Higher	212	42.40%
Household income (per person)	Under EUR 950	88	17.60%
	EUR 950–1800	135	27.00%
	EUR 1801–2500	153	30.60%
	EUR 2501–3500	46	9.20%
	Over EUR 3500	78	15.60%

3. Results

3.1. Purchase Behavior towards PLs

The length of time PLs were purchased for is presented in Table 3. The largest group of consumers purchased PL products for more than 10 years (50.6%). A shorter period (5–10 years) was declared by 22.6% of respondents. The third largest group was formed by consumers purchasing PLs over more than 1 month and less than 1 year (18.0%).

Table 3. The period of purchasing PLs.

Period	(n = 500)	p-Value *
less than 1 month	29 (5.8%)	<0.001
from month to 1 year	90 (18.0%)	
1 to 5 years	15 (3.0%)	
5 to 10 years	113 (22.6%)	
more than 10 years	253 (50.6%)	

* Compared using the chi-square test ($p \leq 0.05$).

The share of PL food products in total food purchases is shown in Table 4. More than 30% of consumers indicated a 50% share, i.e., every second product in the shopping basket was from a retailer's assortment. A smaller share of PL products in the purchase structure was declared by 21.6% of respondents, while a higher share (75%) was reported by 18.2% of respondents. The average share of PL products in the survey was 41.2%.

Table 4. Share of PLs in total food purchases.

Share of PLs	(n = 500)	p-Value *
0%	30 (6.0%)	<0.001
10%	75 (15.0%)	
25%	108 (21.6%)	
50%	181 (36.2%)	
75%	91 (18.2%)	
90%	15 (3.0%)	
Average share	41.2%	

* Compared using the chi-square test $p \leq 0.05$.

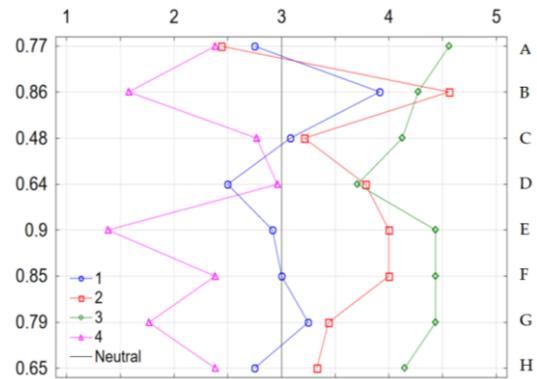
3.2. Main Factors Influencing the Choice of PLs

The main factors influencing the purchasing of PLs (RQ1) for the whole sample population and four consumer clusters are presented in Table 5. The most important factor was the lower price compared to leading brands (mean 3.80 in 5-point Likert scale). The highest value of this factor was recorded in Cluster no. 2 (4.56), while the lowest was in Cluster no. 4 (1.58). For consumers from two clusters (C1 and C2), this factor came out on top. In Cluster no. 3, wide product range was ranked first, and in Cluster no. 4, ability to buy the same products repeatedly. Attachment to a given chain (mean 3.48) was the second most important factor determining the choice of PLs (range from 2.39 in Cluster no. 4 to 3.98 in Cluster no. 2). The feeling of safety and trust in PL products (mean 3.32) was in third place. The lowest importance of this factor is due to the fact that consumers in Cluster no. 4 did not take this factor into account. The factor relating to a wide range of products was the least important (mean 2.98). This factor received an average value below 3 in three clusters, and only in Cluster no. 3 was the mean value representing the importance of this factor above 4.50.

The characteristics of clusters are presented in Table 6. Respondents assigned to Cluster no. C1 constitute the largest group (36.0%). Women represent more than 50%. This group has the highest number of people over years old, with a low income, and the most PL buyers over 10 years of age. Cluster no. C2 represents 27.8% and is the second largest group of respondents. The cluster is dominated by males aged 18–25, middle incomes, and PL buyers over 5 years. Cluster no. C3 represents 20.6% of the total surveyed group, which is predominantly female, aged between 26 and 50, with a middle income. In this group, respondents have been buying PLs for more than 10 years. Cluster no. C4 represents 15.6% and is the smallest group. The typical participant in this group is male, aged 26–50, with a low income, and who has been buying PLs for 5 to 10 years.

Table 5. Cluster analysis: factors influencing PL choice.

Factors ^{1/}	Correlation Ratio	Sample 500 (100%)	Cluster 1 (C1) 180 (36.0%)	Cluster 2 (C2) 139 (27.8%)	Cluster 3 (C3) 103 (20.6%)	Cluster 4 (C4) 78 (15.6%)
A—wide product range	0.77	2.98				
B—lower price compared to leading brands	0.86	3.80				
C—high product quality	0.48	3.29				
D—ability to buy the same products repeatedly	0.64	3.18				
E—availability of PL products in every store of a particular chain	0.90	3.29				
F—attachment to a given chain	0.85	3.48				
G—safety and trust feeling to PL products	0.79	3.32				
H—recognizability of PLs among consumers	0.65	3.14				



p-Value 0.0001. ^{1/}Scale: 1—totally disagree; 2—disagree; 3—neither agree nor disagree; 4—agree; 5—totally agree.

Table 6. Profiles of cluster analysis: factors influencing PL choice.

	Cluster 1 180 (36.0%)	Cluster 2 139 (27.8%)	Cluster 3 103 (20.6%)	Cluster 4 78 (15.6%)
Gender				
Women	57.2%	31.7%	83.5%	37.2%
Men	42.8%	68.3%	16.5%	62.8%
Age				
18–25	8.3%	35.2%	13.6%	0.0%
26–35	13.3%	21.6%	43.7%	42.3%
36–50	16.7%	32.4%	41.7%	38.5%
51+	61.7%	10.8%	1.0%	19.2%
Income				
under EUR 950	8.3%	21.6%	27.2%	19.2%
EUR 950–1800	33.3%	0.0%	29.1%	57.7%
EUR 1801–2500	24.4%	40.3%	39.8%	15.4%
EUR 2501–3500	8.9%	14.4%	3.9%	7.7%
over EUR 3500	25.1%	23.7%	0.0%	0.0%
Period of PL Purchase				
less than 1 month	0.0%	0.0%	13.6%	19.2%
from month to 1 year	23.9%	13.6%	19.4%	10.3%
1 to 5 years	0.0%	10.8%	0.0%	0.0%
5 to 10 years	5.6%	43.2%	9.7%	42.3%
more than 10 years	70.5%	32.4%	57.3%	28.2%

3.3. Age and Income of Consumers as Determinants of PL Purchase by Food Groups

The PL purchases categorized by food products are presented in Table 7 (RQ2). Sweets and biscuits, cereal products, bakery products and dairy products were the most frequently purchased, while meat and meat products and non-alcoholic beverages and water received the lowest scores.

Table 7. Purchase of PLs.

Category of PL Food Products	Average ^{1/}	Age of Respondents		Income of Respondents	
		R	p-Value	R	p-Value
dairy products	2.96	−0.324	<0.001	−0.090	0.043
cereal products	3.13	−0.550	<0.001	0.078	0.083
sweets and biscuits	3.17	−0.589	<0.001	−0.059	0.192
bakery products	2.82	−0.242	<0.001	−0.080	0.073
meat and meat products	1.84	−0.115	0.010	−0.228	<0.001
organic products	2.50	−0.195	<0.001	−0.083	0.064
fruits and vegetables	2.56	−0.263	<0.001	−0.274	<0.001
fruit and vegetable products	2.61	−0.352	<0.001	−0.100	0.026
frozen food	2.63	−0.466	<0.001	0.063	0.162
non-alcoholic beverages and water	2.47	−0.386	<0.001	−0.223	<0.001
alcohol	1.85	−0.073	0.105	−0.404	<0.001

^{1/}Scale: 1—I don't buy at all; 2—I buy rarely; 3—I buy sometimes; 4—I buy often; 5—I buy very often.

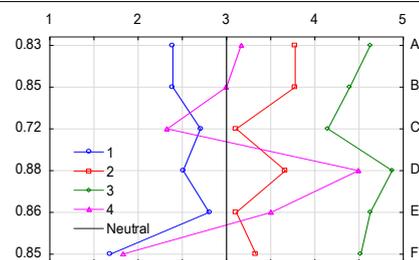
The frequency of purchase of all PL food products, except for alcohol, significantly negatively correlates with age. This means that the purchase of PLs from the analyzed product categories decreases with age. The highest correlation was noted for cereal products ($\rho = -0.550$), sweets and biscuits ($\rho = -0.589$), and frozen food ($\rho = -0.466$). There is no such high correlation in the case of respondents' income and the frequency of purchasing PLs. The largest correlations were recorded for meat and meat products ($\rho = -0.228$), fruits and vegetables ($\rho = -0.274$), and non-alcoholic beverages and water ($\rho = -0.223$). The exception is the alcohol category, where when income increases, the frequency of purchasing alcohol decreases in the medium range ($\rho = -0.404$).

3.4. Consumer Perception of PL Changes

Table 8 presents consumer perception of PL changes (RQ3) for the study population and the four consumer clusters. For the study population, increasing availability (mean 3.76 on 5-point Likert scale) and improving image and quality (mean 3.46 and 3.45) were considered as the most important. The introduction of organic and natural products was assigned the least importance (mean 2.84).

Table 8. Cluster analysis: consumer perception of PL changes.

Statements ^{1/}	Correlation Ratio	Sample 500 (100%)	Cluster 1 153 (30.6%)	Cluster 2 135 (27.0%)	Cluster 3 121 (24.2%)	Cluster 4 91 (18.2%)
A—quality improvement	0.83	3.45				
B—increase in the product range	0.85	3.36				
C—visual presentation improvement	0.72	3.10				
D—increase in availability	0.88	3.76				
E—image improvement	0.86	3.46				
F—introduction of organic and natural products	0.85	2.84				



p-Value 0.0001; ^{1/}Scale: 1—totally disagree; 2—disagree; 3—neither agree nor disagree; 4—agree; 5—totally agree.

Cluster no. 1 is the largest, accounting for 30.6% of the study population, but this group yielded the lowest mean values for almost all statements analyzed. This indicates factor neutrality or disagreement. Cluster no. 2 comprises 27.0% of the total population. Consumers evaluated as highest the changes related to quality improvement, increasing assortment, and increasing availability of PL. Neutral answers referred to improving the image and visual presentation. Consumers in Cluster no. 3 (24.2% of the study population) perceived changes in PLs most positively, and the three factors with the highest mean values in this cluster related to improved availability, quality, and image. In the least populous

Cluster no. 4 (18.2%), increasing availability and improving image were perceived as the most important PL changes.

The characteristics of clusters are presented in Table 9. The first cluster is the largest group comprising 30.6% of the study population. Almost half of the people have bought PLs for 1–5 years. In this cluster, half of the people belong to the 36–50 age range, and there are more men (52.3%) and people with a high or medium income. Cluster C2 contains 27.0% of respondents. More than half are women, over 51 years old, with low incomes and a history of buying PLs for more than 10 years. Cluster no. C3 is dominated by women (77.7%), aged 26–50, with low income, who have also been buying PLs for more than 10 years. The last cluster is the smallest, with 18.2% of respondents. In this group, there are more men (53.9%), aged 18–25, with a middle income, and who have been buying PLs for more than 10 years.

Table 9. Profiles of cluster analysis: consumer perception of PL changes.

	Cluster 1 153 (30.6%)	Cluster 2 135 (27.0%)	Cluster 3 121 (24.2%)	Cluster 4 91 (18.2%)
Gender				
Women	47.7%	54.1%	77.7%	46.1%
Men	52.3%	45.9%	22.3%	53.9%
Age				
18–25	9.2%	11.1%	11.6%	38.5%
26–35	15.7%	33.3%	39.7%	16.5%
36–50	49.0%	0.0%	47.9%	16.5%
51+	26.1%	55.6%	0.8%	28.5%
Income				
under EUR 950	9.8%	22.2%	35.5%	0.0%
EUR 950-1800	29.4%	33.3%	37.2%	0.0%
EUR 1801-2500	21.6%	19.3%	22.3%	73.6%
EUR 2501-3500	7.8%	3.0%	5.0%	26.4%
over EUR 3500	31.4%	22.2%	0.0%	0.0%
Period of PL purchase				
less than 1 month	9.8%	0.0%	11.6%	0.0%
from month to 1 year	9.8%	33.3%	12.4%	16.5%
1 to 5 years	9.8%	0.0%	0.0%	0.0%
5 to 10 years	47.7%	0.0%	12.4%	27.5%
more than 10 years	22.8%	66.7%	63.6%	56.0%

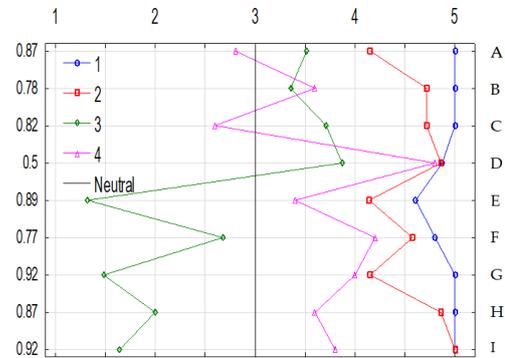
3.5. Consumer Evaluation of PL Products

Table 10 shows the evaluation of food products under PLs (RQ4) in the study population and the four consumer clusters. Freshness (mean 4.52), quality certificates (mean 4.24) and low degree of processing (mean 4.19) were rated highest.

Consumers in Cluster no. 1 positively evaluated food products under PLs in terms of minimal product processing, nutritional value, presence of natural ingredients in the composition, certifications, environmental friendliness and organic production method. High scores between 4 and 5 were given to statements rated by consumers in Cluster no. 2. PL products were rated highest in terms of freshness, nutritional value and environmentally friendly production method. Almost 20% of respondents (Cluster no. 3) disagreed with the statements that PL food products are nutritious and produced in a traditional, organic, and environmentally friendly way. The highest ratings in this cluster were given to such food attributes as freshness and low degree of processing. Consumers in Cluster no. 4 (15.0% of the study population) rated freshness, local origin, and organic production the highest, with low degrees of processing and natural ingredients scoring lowest.

Table 10. Cluster analysis: consumer evaluation of PL food products.

Statements ^{1/}	Correlation Ratio	Sample 500 (100%)	Cluster 1 226 (45.2%)	Cluster 2 106 (21.2%)	Cluster 3 93 (18.0%)	Cluster 4 75 (15.0%)
A—only with natural ingredients	0.87	4.02				
B—with quality certificates, etc.	0.78	4.24				
C—minimally processed	0.82	4.19				
D—freshness	0.50	4.52				
E—traditionally produced	0.89	3.52				
F—comes from where I live	0.77	4.07				
G—organically produced	0.92	3.88				
H—environmentally friendly production	0.87	4.08				
I—nutritional	0.92	4.07				



p-Value 0.0001; ^{1/}Scale: 1—totally disagree; 2—disagree; 3—neither agree nor disagree; 4—agree; 5—totally agree.

The characteristics of the clusters are presented in Table 11. The first cluster contains almost half of the respondents (45.2%) and is dominated by women (70.8%), aged 51+, with a middle income. The second cluster (21.2%) is the opposite in terms of gender, as this group is dominated by men (82.1%), aged 36–50, with a middle income. The third cluster contains more males, aged 18–50, with a low income. In the last cluster (15.0%), there are more women, aged 36+ with a middle income, but this group includes all income levels to some degree (about 20%). In the consumer evaluation of PL food products, each group of respondents had been buying PLs for more than 10 years.

Table 11. Profiles of cluster analysis: consumer evaluation of PL food products.

	Cluster 1 226 (45.2%)	Cluster 2 106 (21.2%)	Cluster 3 93 (18.0%)	Cluster 4 75 (15.0%)
Gender				
Women	70.8%	17.9%	45.2%	54.7%
Men	29.2%	82.1%	54.8%	45.3%
Age				
18–25	7.1%	29.2%	32.3%	1.3%
26–35	27.4%	22.7%	33.3%	20.0%
36–50	26.1%	28.3%	31.2%	40.0%
51+	39.4%	19.8%	3.2%	38.7%
Income				
under EUR 950	13.7%	13.2%	31.2%	18.7%
EUR 950-1800	26.6%	28.3%	32.3%	20.0%
EUR 1801-2500	42.0%	34.0%	3.2%	25.3%
EUR 2501-3500	9.7%	10.4%	1.1%	16.0%
over EUR 3500	8.0%	14.1%	32.3%	20.0%
Period of PL Purchase				
less than 1 month	6.6%	0.0%	15.1%	0.0%
from month to 1 year	18.6%	17.0%	15.1%	21.3%
1 to 5 years	0.0%	0.9%	0.0%	18.7%
5 to 10 years	20.8%	28.3%	22.5%	20.0%
more than 10 years	54.0%	53.8%	47.3%	40.0%

4. Discussion

In our study we have analyzed consumer behavior and perception regarding PLs in Tenerife as an autonomous community, with special attention given to sustainability

aspects. A discussion in three parts is presented. The first part relates to factors influencing the choice of PLs (RQ1) and purchases of PLs by product group (RQ2). The second part describes the changes in PLs (RQ3) and the evaluation of PL products (RQ4). In the third part, the perspectives on the development of sustainable PLs and the importance of the timing of the COVID-19 pandemic are described.

4.1. Factors Determining PL Purchase

Research question no. 1 was to identify the factors that determine the purchase of PL products. Lower prices compared to producer brands were identified as the most important factor for the whole population. Cluster analysis showed that for the two most numerous clusters, lower price was the most important choice factor. Two groups of consumers can be distinguished for which price is the main factor of choice. The first group is the largest cluster, covering 36% of the study population. More than 70% of people have been buying PLs for more than 10 years. In this cluster, more than 60% are over the age of 51 and more than 50% are women. Feeling safe and trusted proved to be another factor in choosing PLs. The second group of consumers for whom lower price is also the most important factor of choice is a more diverse cluster. Here, most people are in the 18–25 and 36–50 age group. These people have been buying PLs for more than 5 years. The availability of PL products in every store of a particular chain and attachment to a given chain proved to be the next most important factors in choosing PLs. In Tenerife, as an autonomous community, price-related aspects are important due to the geographical and economic characteristics that influence consumer behavior. The Canary Islands are characterized by incomes (minimum or average income) lower than in mainland Spain by nearly 15% (from 2020: EUR 950 to about EUR 1108) [65,113] and a high unemployment level of about 21% [114,115].

Many studies on consumer behavior confirm that the main factor in purchasing PLs is the attractive lower price [37,82,116,117]. This is due to price differences between PLs and manufacturer brands [118]. According to the 2018 IRI report, the average price of PL products in Europe in 2017 was about 70% of the average price of producer brands. The highest rate (83.7%) was observed in Italy and the lowest in France (61.3%). In Spain, it was 74.9%, but increased by 0.8% compared to 2016 [118]. In addition to real price differences, the perception of prices as lower is also important. Creating the image of lower prices becomes a tool for retailers to influence consumer loyalty to PLs [31]. This is related to consumer price sensitivity [15]. Such an approach is also important in emphasizing good value for money for PLs in general and premium PLs [23]. Moreover, price-conscious consumers are the ones most likely to purchase PL products in low-differentiation categories [94].

The lower prices of PL products are also important in the context of macroeconomic conditions and the economic situation. According to the USDA report from 2020, the last global economic crisis (2008–2013) had a huge impact on the development of PLs and their perception by consumers in the 21st century [62]. PLs significantly increased their share in the shopping basket to 35–42% during the crisis [117], and in recent years this has increased to about 50% [18]. This is part of the competitive rivalry between retail chains; moreover, PLs are becoming a tool to create competitive advantage [25,33]. Lower prices for PL products are achieved through lower production costs and lower margins. The margin refers to the manufacturer's margin and the distributor's margin. Maintaining a lower price and satisfactory distributor margin is possible with a lower manufacturer margin [119]. This was particularly important for PLs in the first or second stages of development, where margins are lower compared to those for the product category [55]. Currently, the situation is more complicated due to the varied relationships with PL suppliers and the diverse, three-tiered PL portfolios affecting gross margins. At the same time, multisourcing occurs, wherein there are several suppliers for a single PL product. In addition, economic PLs can be attractive, ensuring competition between chains, but they bring lower margins, which is primarily experienced by manufacturers. For premium PLs, margins are much higher [120]. Retailers can price premium PLs at a competitive level compared to national brands (NB)

at attractive margins. This is because PLs do not require the same level of marketing and sales, which is about 15–20% of the cost of NBs. As a result, retailers can offer lower prices compared to NBs. Faigen and Ebner reported the individual product price components for NBs and PLs, which ultimately give the final price (NB = USD 5.87 and PL = USD 3.69). There are significant differences between the retailer gross margin (NB = USD 0.5 and PL = USD 1.07) and the manufacturing margin (NB = USD 1.09 and PL = USD 0.16) [121].

Responding affirmatively to research question no. 2, the purchase of all PL products except for alcohol, significantly negatively correlates with age. There is no such correlation in the case of respondents' income and the frequency of purchasing PLs. There is a gap in the available literature regarding the relationship between age and income and the frequency of PL purchase by product group. Few studies refer to consumer segments based on income. For example, higher-income French consumers value PLs more than lower-income consumers. In contrast, age does not influence respondents' purchase decisions [95]. However, other studies show the impact of age and income on perceptions of and preferences for PLs. A study conducted in Slovakia has identified which PL types are purchased by consumers, considering their family status. At the same time, consumers' perceptions of PL products are determined by the consumer's age, income and family status, as well as by the reasons for their purchase [86]. Research in Greece indicates a correlation between age, income and household size, and various drivers of consumers' intention to buy PLs, including brand awareness, perceived value, quality, and risk. Additionally, age, rather than income, influences the purchase intention of PLs [11].

Our study indicates that the most frequently purchased PL categories are sweets and pastries, cereal, and dairy products, as well as bakery products. In the US, the highest share in sales in 2019 was recorded for bakeries (36.6%), dairy products (33.1%) and delicatessens (23.6%), and the lowest was for seafood (5.2%) and fresh food (11.2%) [122]. In contrast, British consumers most often chose fruit and vegetables, dairy products, bread, meat and sausages, while in Poland the choices were dairy products, cereal products, soft drinks and water [9]. In Slovakia, the most frequently chosen categories of food were dairy products (approx. 40%) and durable goods (approx. 35%). Lower results were noted for alcoholic beverages (approx. 30%) or frozen drinks (25%) [86]. In Spain, according to the IRI report of 2018, the highest value shares were observed for frozen food (57.6%), chilled and fresh products (46.3%), non-alcoholic beverages (25.1%) and alcoholic drinks (21.2%) [123].

4.2. Evaluation of PL Changes and PL Products

Our study of research question no. 3 indicated that consumers perceive changes occurring in PLs (QR3). These include increased availability, and improved image and quality. Cluster analysis showed that people who had been buying PLs for the longest time were the most likely to notice changes, i.e., improvements in quality or image. Changes were more often noticed by women, people with higher education and people over 50 years old. There is a lack of research in the literature on the evaluation of PL changes according to socio-economic characteristics. Only general results regarding changes in PLs are presented. For example, in a study conducted in Kenya, improved availability, variety of assortment, and better quality were identified as the biggest changes [80]. Polish studies identified a wide range of PLs, with the availability of given products in every store of a given retail chain, which was also associated with a good price/quality ratio and trust in the retailer [70,83,124,125].

Quality improvement should be considered as an important element confirming the development of sustainable PLs [8]. It is seen in relation to the quality of products available under national brands (NBs) [40]. In this view, quality is seen in terms of subjective evaluation of the product [126], and its excellence and superiority over other products [31,127,128]. The quality premium of NBs observed in the past has largely disappeared. Thus, the quality gap potentially existing between PLs and NBs is reduced [14], and quality becomes an important factor in choosing PLs [11,12]. However, the perception of PL quality depends on PL types, product categories, and countries. This was analyzed in a study conducted in

three countries and seven product categories (US—ice cream, chocolate cookies; UK—tea, instant coffee, ground coffee, and Australia—ketchup and dry paste) for premium PLs, value PLs, and NBs. In four of the seven categories, premium PLs were associated with higher quality than value PLs. The comparison of NBs and premium PLs revealed that, for five categories, NBs were more strongly associated with quality than premium PLs [23].

Improving the perceived quality of PLs is important for retail chains. The higher perceived quality of PL products allows for attracting consumers focused on quality [40], as well as the development of premium products [39]. In addition, research in Portugal has shown that PLs' quality is a critical factor for the sustainable penetration of PLs. PL quality directly affects consumers' loyalty to PLs and indirectly affects loyalty to the store [52]. Additionally, as indicated by a study conducted in Germany, product quality had a stronger impact on the market share of PLs than that of NBs [129].

In evaluating PL products for research question no. 4, seven of the nine terms scored an average above 4 (on a 5-point Likert scale). This means that consumers agree with the following terms for PL products: fresh, sustainably produced, close to home, nutritious, minimally processed, and organically produced. Cluster analysis showed that those who have been buying PLs the longest rate PL products very highly, regardless of income situation and education. Young people with the highest income and living in the largest cities were more critical.

The evaluation of PL products should be combined with the activities of retail chains in Spain. Sustainable hot topics include efforts to develop local products, promote organic products, reduce plastic, develop and use green energy, generate energy savings, and reduce food waste [10]. The introduction of organic PLs is an example of the improvement of sustainability policies by Spanish retailers. Lidl, Carrefour, Aldi and regional supermarket chains are leading the organic food revolution [10]. Organic labels and fair-trade offerings in PLs are perceived as signs of environmental and social commitment. In the food sector, organic PLs have been on the market for a long time [130]. Currently, the development of organic PLs can be treated as a tool for creating a competitive advantage for retail chains [90].

The literature indicates that consumers are becoming increasingly conscious buyers. They are concerned about health, safety, food quality, environmental care, and place of production [131]. In turn, the increasing health and nutritional awareness of consumers is reflected in perceived food safety. It can be described as the degree to which customers feel that the consumption of the branded products is harmless to human health [28]. This leads to the increased importance of quality signs. For example, a study conducted in Poland found a relationship between the frequency of origin and organic food purchase and the role attributed to quality signs. At the same time, there is a relationship between the positive perception of European quality signs and the self-reported willingness to pay a higher price for origin and organic food [132]. The growing consumer awareness of the health aspects of food includes the organic PLs trend. A study conducted in Germany indicated that conventional PLs are perceived as less healthy, less hedonistic, less environmentally friendly and less safe compared to organic PLs, and showed lower price premium and purchase intention [28]. In Malaysia, on the other hand, the main motive for the intention to buy organic food is product safety, including the absence of pesticide residues, and the protection of plant products or animals [131]. Another study presented organic PLs as a means of reducing the risk of unsuccessful purchases, as well as ensuring quality assurances and increasing brand awareness [133,134]. Naturalness, lack of pesticides, respect for the environment and the nutritional value of specific products are also pointed out [135,136].

4.3. General Remarks

Our study was conducted during the COVID-19 pandemic. This has a twofold effect on the results. First, the timing of the pandemic reduced tourist arrivals, and Tenerife is a well-known tourist destination. This has resulted in fewer earning opportunities, and a difficult situation in the tourism sector. There has also been a decline in the income of part

of the population. According to a consumer survey conducted by AECOC in April 2020, the economic crisis caused by the COVID-19 pandemic was the most significant Spain has experienced since 2008 [62]. Changes in the economy, manufacturing, technology and service sectors were observed [137–141]. During this time, interest in PLs has increased. The study shows that compared to the previous economic crisis, the image of PLs has improved, from being associated with cheap products to indicating good value for money and premium quality products at a lower price [62]. Secondly, consumer preferences and behaviors have changed. Some of the most important changes include more prudent shopping decisions, a growing interest in price reductions, increased likelihood of buying locally, and a greater preference for buying fresh products instead of processed or semi-processed products [142].

Considering the above arguments, and as is also related to the COVID-19 pandemic, the development of sustainable PLs should be considered from three perspectives: retailer, producer, and consumer. The retailer's perspective refers to extending the range of products available under PLs with greater added value. These include organic, locally produced, less processed products offered in packaging that is less harmful to the environment. Such activities are related to corporate environmental responsibility [143]. Considering the share of retail chains in trade, this is an important step in introducing the principles of sustainable development. The development of PLs refers to the implementation of sustainability principles by retail chains. It is related to the fact that in countries such as the UK, Ireland, and Germany, PLs represent a significant part of the market, and the implementation of the Sustainable Development Goals is an opportunity for chains to make a difference for people, the environment, and the planet, on the one hand, and to occupy a unique position in the market, on the other hand. The IPLC report presents actions taken by retail chains in the UK, Ireland, Germany, France, Italy, Portugal, Spain, and the Netherlands to develop sustainable PLs [10].

The producer perspective refers to changing the production structure and introducing sustainable production principles. It is a production means that is less harmful to the environment, more innovative, and not focused solely on the aspect of lowest prices. Striving to minimize production costs leads to unbalanced production processes due to the focus on the mass production of products with the lowest unit costs. The development of sustainable PLs will allow for diversification, which will be beneficial for both financial and environmental reasons. The consumer perspective means the presence of better quality, more sustainably produced products on the market, as well as less processed products. In addition, consumers may perceive sustainable PLs as quality signals, thus providing a guarantee of a certain means of sustainable production. A positive consumer perception of quality labels means self-reported willingness to pay a higher price [132].

In conclusion, the development of PLs in an autonomous community such as the community of Tenerife is moving towards sustainability factors. On the one hand, consumers perceive improvements in quality, sustainability of production, local and organic production, degree of processing and nutritional aspects. On the other hand, price ranks first among the factors of choice. At the same time, retail chains are undertaking sustainability activities that address issues of great concern. In addition, the same retail chains operate in Tenerife as in mainland Spain. Therefore, it can be concluded that PLs are evolving towards sustainable brands, but it is likely that this will depend on consumer attitudes and further actions taken by retail chains.

Our study has some limitations. We focus on food products, without including other categories of consumer goods. We do not compare the quality of PL products with producer brands. Future studies should include comparisons of the quality and prices of PL products and products offered under manufacturers' brands. It would also be important to analyze the development of PLs in organic product categories. It would be worthwhile to analyze to what extent the sustainability issue is present in relation to the PLs of retail chains depending on the retail format (e.g., discount chains).

5. Conclusions

Our research has shown that lower prices compared to leading brands has been the first factor contributing to choosing PLs in the autonomous community of Tenerife during the COVID-19 pandemic. However, consumers perceive PL changes in terms of increased availability, improved quality, and image. PL food products were evaluated in the context of selected sustainability aspects. Consumers emphasized freshness, low levels of processing, and environmentally friendly production. This points to the development of PLs towards sustainable PLs, which should be combined with the retailers' sustainability efforts, including reductions in plastic and food waste, the promotion of organic products, increasing the range of PL organic food, introducing environmentally friendly packaging, and developing and favoring local production.

Our study is useful for retail companies looking to develop sustainable PLs, and helps to identify tools and methods to achieve a competitive advantage based on sustainability. Only the joint activities of international retail chains and local retailers in large markets and smaller communities will help to realize the goals of sustainable retailing.

Author Contributions: Conceptualization, M.C. and H.G.-W.; methodology, M.C. and H.G.-W.; data extraction and synthesis; empirical research, M.C. and B.R.; statistical calculations, W.L.; writing—original draft preparation, M.C. and H.G.-W.; writing—review and editing, M.C. and H.G.-W. All authors have read and agreed to the published version of the manuscript.

Funding: The project was financed by the Polish Ministry of Science and Higher Education within funds of Institute of Human Nutrition, Warsaw University of Life Sciences (WULS) for scientific research.

Institutional Review Board Statement: The study was approved by the Ethics Committee of the Institute of Human Nutrition Sciences, Warsaw University of Life Sciences, in Poland on the 31 August 2020 (Resolution No. 36/2020), and was carried out according to the guidelines of the Declaration of Helsinki.

Informed Consent Statement: The survey was conducted anonymously in accordance with the permission of Ethics Committee of the Institute of Human Nutrition Sciences, Warsaw University of Life Sciences, in Poland on the 31 August 2020 (Resolution No. 36/2020).

Data Availability Statement: Data are available at the Department of Food Market and Consumption research in the Institute of Human Nutrition Sciences, Warsaw University of Life Sciences, in Poland.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Hara, R.; Matsubayashi, N. Premium store brand: Product development collaboration between retailers and national brand manufacturers. *Int. J. Prod. Econ.* **2017**, *185*, 128–138. [CrossRef]
- Ailawadi, K.L.; Pauwels, K.; Steenkamp, J.-B.E. Private-Label Use and Store Loyalty. *J. Mark.* **2008**, *72*, 19–30. [CrossRef]
- Ibarra Consuegra, O.; Kitchen, P. Own labels in the United Kingdom: A source of competitive advantage in retail business. *Pensam. Gestió* **2006**, *21*, 114–161.
- Dobson, P.; Chakraborty, R. Private labels and branded goods: Consumers' "horrors" and "heroes". In *Labels, Brands and Competition Policy: The Changing Landscape of Retail Competition*; Ezrachi, A., Bernitz, U., Eds.; Oxford University Press: Oxford, UK, 2009; pp. 100–124. ISBN 10: 0199559376.
- Wang, J.J.; Torelli, C.J.; Lalwan, A.K. The interactive effect of power distance belief and consumers' status on preference for national (vs. private-label) brands. *J. Bus. Res.* **2020**, *107*, 1–12. [CrossRef]
- Dekimpe, M.G.; Deleersnyder, B. Business cycle research in marketing: A review and research agenda. *J. Acad. Mark. Sci.* **2018**, *46*, 31–58. [CrossRef]
- Martos-Partal, M.; González-Benito, O.; Fustinoni-Venturini, M. Motivational profiling of store brand shoppers: Differences across quality tiers. *Mark. Lett.* **2015**, *26*, 187–200. [CrossRef]
- Gómez-Suárez, M.; Martínez-Ruiz, M.P. *Handbook of Research on Strategic Retailing of Private Label Products in a Recovering Economy*; IGI Global: Madrid, Spain, 2016; ISBN 9781522502210.
- Czczotko, M.; Górska-Warsewicz, H.; Laskowski, W. Towards sustainable private labels-What is the consumer behavior relating to private labels in the UK and Poland? *Sustainability* **2020**, *12*, 6035. [CrossRef]
- Michel, A.; De Jong, K.; Medina, R.; Harrow, R.; O'Connor, M.; Palomba, P.; Ghetti, S.; Sobrero, L.; Lombert, R. The Race towards Sustainable Private Label. Carrot, Stick or Collaboration? Available online: <https://www.iplc-europe.com/3485/?lang=en> (accessed on 19 January 2020).

11. Kakkos, N.; Trivellas, P.; Sdrolas, L. Identifying Drivers of Purchase Intention for Private Label Brands. Preliminary Evidence from Greek Consumers. *Procedia Soc. Behav. Sci.* **2015**, *175*, 522–528. [[CrossRef](#)]
12. Hoskins, J.D. Offering value and capturing surplus: A strategy for private label sales in a new customer loyalty building scenario. *J. Retail. Consum. Serv.* **2016**, *28*, 274–280. [[CrossRef](#)]
13. Kot, Z.; Kaczorowska, J. Perception of private labels in Poland among young consumers. *Eur. Policies Financ. Mark.* **2013**, *10*, 371–380.
14. Peter, J. Boyle and E. Scott Lathrop The value of private label brands to U.S. consumers: An objective and subjective assessment. *J. Retail. Consum. Serv.* **2007**, *20*, 80–86.
15. Ipek, I.; Aşkin, N.; Ilter, B. Private label usage and store loyalty: The moderating impact of shopping value. *J. Retail. Consum. Serv.* **2016**, *31*, 72–79. [[CrossRef](#)]
16. Geyskens, I.; Gielens, K.; Gijsbrechts, E. Proliferating Private-Label Portfolios: How Introducing Economy and Premium Private Labels Influences Brand Choice. *J. Mark. Res.* **2010**, *47*, 791–807. [[CrossRef](#)]
17. Florensa Alcaraz, S.; Fontcuberta Fradera, C.; Frau Pons, M. *Marcas Blancas Nuevo Concepto Comercial del Sector Alimentario*; Universitat Pompeu Fabra: Barcelona, Spain, 2008; pp. 1–49.
18. Private Label Market (PLMA) Private Label Popular across Europe. Available online: <https://www.plmainternational.com/industry-news/private-label-today> (accessed on 15 October 2020).
19. Private Label Market (PLMA) Private Label's Market Share Reaches All-Time High in 9 European Countries. Available online: https://www.plmainternational.com/d/2017/WPL17/Press/PressReleaseYB2017_en.pdf (accessed on 25 April 2019).
20. Private Label Market (PLMA) Private Label Gains across Europe, Climbing to All-Time Highs in Seven Countries. Available online: <https://www.plmainternational.com/news-update> (accessed on 25 April 2019).
21. Amrouche, N.; Ben Rhouma, T.; Zaccour, G. Branding Decisions for Retailers' Private Labels. *J. Mark. Channels* **2014**, *21*, 100–115. [[CrossRef](#)]
22. Sebri, M.; Zaccour, G. Cross-country differences in private-label success: An exploratory approach. *J. Bus. Res.* **2017**, *80*, 116–126. [[CrossRef](#)]
23. Nencycz-Thiel, M.; Romaniuk, J. Understanding premium private labels: A consumer categorisation approach. *J. Retail. Consum. Serv.* **2016**, *29*, 22–30. [[CrossRef](#)]
24. Narasimhan, C.; Wilcox, R.T. Private Labels and the Channel Relationship: A Cross-Category Analysis. *J. Bus.* **1998**, *71*, 573–600. [[CrossRef](#)]
25. Vroegrijk, M.; Gijsbrechts, E.; Campo, K. Battling for the Household's Category Buck: Can Economy Private Labels Defend Supermarkets Against the Hard-Discounter Threat? *J. Retail.* **2016**, *92*, 300–318. [[CrossRef](#)]
26. Calvo-Porrà, C.; Lévy-Mangin, J.P. Private label brands: Major perspective of two customer-based brand equity models. *Int. Rev. Retail. Distrib. Consum. Res.* **2014**, *24*, 431–452. [[CrossRef](#)]
27. Cuneo, A.; Milberg, S.J.; Benavente, J.M.; Palacios-Fenech, J. The growth of private label brands: A worldwide phenomenon? *J. Int. Mark.* **2015**, *23*, 72–90. [[CrossRef](#)]
28. Bauer, H.H.; Heinrich, D.; Schäfer, D.B. The effects of organic labels on global, local, and private brands. More hype than substance? *J. Bus. Res.* **2013**, *66*, 1035–1043. [[CrossRef](#)]
29. de Chernatony, L. Marketers' and Consumers' Concurring Perceptions of Market Structure. *Eur. J. Mark.* **1989**, *23*, 7–16. [[CrossRef](#)]
30. Collins-Dodd, C.; Lindley, T. Store brands and retail differentiation: The influence of store image and store brand attitude on store own brand perceptions. *J. Retail. Consum. Serv.* **2003**, *10*, 345–352. [[CrossRef](#)]
31. Beristain, J.J.; Zorrilla, P. The relationship between store image and store brand equity: A conceptual framework and evidence from hypermarkets. *J. Retail. Consum. Serv.* **2011**, *18*, 562–574. [[CrossRef](#)]
32. Schnittka, O. Are they always promising? An empirical analysis of moderators influencing consumer preferences for economy and premium private labels. *J. Retail. Consum. Serv.* **2015**, *24*, 94–99. [[CrossRef](#)]
33. Bozhinova, M. Private Label-Retailers' Competitive Strategy. *Glob. J. Manag. Bus. Res.* **2013**, *13*, 29–35.
34. Carsana, L.; Jolibert, A. Influence of iconic, indexical cues, and brand schematicity on perceived authenticity dimensions of private-label brands. *J. Retail. Consum. Serv.* **2018**, *40*, 213–220. [[CrossRef](#)]
35. ter Braak, A.; Geyskens, I.; Dekimpe, M.G. Taking private labels upmarket: Empirical generalizations on category drivers of premium private label introductions. *J. Retail.* **2014**, *90*, 125–140. [[CrossRef](#)]
36. Semeijn, J.; van Riel, A.C.R.; Ambrosini, A.B. Consumer evaluations of store brands: Effects of store image and product attributes. *J. Retail. Consum. Serv.* **2004**, *11*, 247–258. [[CrossRef](#)]
37. The Rise and Rise Again of Private Label. Available online: <http://www.nielsen.com/us/en/insights/reports/2018/the-rise-and-rise-again-of-private-label.html> (accessed on 9 June 2018).
38. De, D.; Singh, A. Consumer's Perspective and Retailer's Consideration towards Purchase of Private Label Brands. In Proceedings of the Procedia Computer Science, Zurich, Switzerland, 12–14 June 2017; pp. 122, 587–594.
39. Kumar, N.; Steenkamp, J. *Private Label Strategy: How to MEET the store Brand Challenge*, 1st ed.; Harvard Business School Press: Boston, MA, USA, 2007.
40. Bao, Y.; Bao, Y.; Sheng, S. Motivating purchase of private brands: Effects of store image, product. *J. Bus. Res.* **2011**, *64*, 220–226. [[CrossRef](#)]
41. Chan Choi, S. Defensive strategy against a private label: Building brand premium for retailer cooperation. *J. Retail. Consum. Serv.* **2017**, *34*, 335–339. [[CrossRef](#)]

42. Miquel-Romero, M.J.; Caplliure-Giner, E.M.; Adame-Sánchez, C. Relationship marketing management: Its importance in private label extension. *J. Bus. Res.* **2014**, *67*, 667–672. [[CrossRef](#)]
43. Pepe, M.S.; Abratt, R.; Dion, P. The impact of private label brands on customer loyalty and product category profitability. *J. Prod. Brand Manag.* **2011**, *20*, 27–36. [[CrossRef](#)]
44. Grewal, D.; Krishnan, R.; Baker, J.; Borin, N. The Effect of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions. *J. Retail.* **1998**, *74*, 331–352. [[CrossRef](#)]
45. Fischer De La Vega, L.E.; Jorge Espejo, C. *Mercadotecnia*; Jesús Mares, C., Ed.; IV; McGraw Hill: Mexico City, Mexico, 2011; ISBN 9786071505392.
46. Abril, C.; Rodríguez-Cánovas, B. Marketing mix effects on private labels brand equity. *Eur. J. Manag. Bus. Econ.* **2016**, *25*, 168–175. [[CrossRef](#)]
47. Retnawati, B.B.; Ardyan, E.; Farida, N. The important role of consumer conviction value in improving intention to buy private label product in Indonesia. *Asia Pac. Manag. Rev.* **2017**, *23*, 193–200. [[CrossRef](#)]
48. Ruiz-Real, J.L.; Gázquez-Abad, J.C.; Esteban-Millat, I.; Martínez-López, F.J. Betting exclusively for private labels: Could it have negative consequences for retailers? *Span. J. Mark. ESIC* **2017**, *22*, 183–202. [[CrossRef](#)]
49. Sansone, M.; Bruni, R.; Colamatteo, A. Selecting Factors Affecting the Purchase of Private Label Products. In *Advances in National Brand and Private Label Marketing*; Martínez-López, F., Gázquez-Abad, J., Ailawadi, K., Yagüe-Guillén, M., Eds.; Springer: Berlin/Heidelberg, Germany, 2017; pp. 117–129. ISBN 9783319597010.
50. Dursun, İ.; Kabadayı, E.T.; Alan, A.K.; Sezen, B. Store Brand Purchase Intention: Effects of Risk, Quality, Familiarity and Store Brand Shelf Space. *Procedia Soc. Behav. Sci.* **2011**, *24*, 1190–1200. [[CrossRef](#)]
51. Gázquez-Abad, J.C.; Martínez-López, F.J.; Esteban-Millat, I. The role of consumers' attitude towards economic climate in their reaction to 'PL-only' assortments: Evidence from the United States and Spain. *J. Retail. Consum. Serv.* **2017**, *34*, 340–348. [[CrossRef](#)]
52. do Vale, R.C.; Verga Matos, P.; Caiado, J. The impact of private labels on consumer store loyalty: An integrative perspective. *J. Retail. Consum. Serv.* **2016**, *28*, 179–188. [[CrossRef](#)]
53. Anselmsson, J.; Burt, S.; Tunca, B. An integrated retailer image and brand equity framework: Re-examining, extending, and restructuring retailer brand equity. *J. Retail. Consum. Serv.* **2017**, *38*, 194–203. [[CrossRef](#)]
54. Cyran, K. The perception of private labels of food products vs. the prospects for their development. *Res. Pap. Wroclaw Univ. Econ.* **2016**, *450*, 114–124.
55. Laaksonen, H.; Reynolds, J. Own brands in food retailing across Europe. *J. Brand Manag.* **1994**, *2*, 37–46. [[CrossRef](#)]
56. Sogn-Grundvåg, G.; Larsen, T.A.; Young, J.A. Product Differentiation with Credence Attributes and Private Labels: The Case of Whitefish in UK Supermarkets. *J. Agric. Econ.* **2014**, *65*, 368–382. [[CrossRef](#)]
57. Burt, S. The strategic role of retail brands in British grocery retailing. *Eur. J. Mark.* **2000**, *34*, 875–890. [[CrossRef](#)]
58. Report on the Relations Between Manufacturers and Retailers in the Food Sector. Available online: <https://www.cnmec.es/expedientes/e-2010-04> (accessed on 14 December 2020).
59. Kantar Balance y Tendencias en la Distribución y Gran Consumo. 2019. Available online: <https://www.kantarworldpanel.com/es/Noticias/Balance-de-la-Distribucion-2019%0A%0A> (accessed on 14 December 2020).
60. Salinas, E.M.; Gutiérrez, T.M. Caracterización de los compradores de marca de distribuidor. In *Decisiones Basadas en el Conocimiento y en el Papel Social de la Empresa*; Asociación Española de Dirección y Economía de la Empresa: Palma de Mallorca, Spain, 2007; pp. 202–216.
61. Pablo, S. La Marca Blanca, que Alcanza el 40% de las Ventas, se Reinventa y Apuesta También por Productos Premium. Available online: <https://www.20minutos.es/noticia/3654075/0/marca-blanca-mercadona-premium-distribucion-supermercados/?autorefer=true> (accessed on 7 December 2020).
62. Medina, A. Spanish Retail and Distribution Sector Update. Available online: <https://www.fas.usda.gov/data/spain-spanish-retail-and-distribution-sector-update> (accessed on 14 December 2020).
63. ISTAC: Estadísticas de la Comunidad Autónoma de Canarias. Available online: <http://www.gobiernodecanarias.org/istac/jaxi-istac/menu.do?uripub=urn:uuid:fb0bdc8-cacb-43b8-a5cb-a93f745dcff6> (accessed on 29 March 2021).
64. Instituto Nacional de Estadística Annual Report. 2019. Available online: https://www.ine.es/ss/Satellite?L=en_GB&c=Page&cid=1254735905219&p=1254735905219&pagename=INE%2FINELayout (accessed on 7 December 2020).
65. Instituto Canario De Estadística-ISTAC Indicadores de Ingreso-Tenerife. Available online: <http://www.gobiernodecanarias.org/istac/jaxi-istac/menu.do?uripub=urn:uuid:f75cf764-5285-4933-be5b-26b2fc605b6c> (accessed on 7 December 2020).
66. López, G.R.; Pomposo, D.M. *Estadísticas Económicas: Encuesta de Hábitos Y Confianza Socioeconómica*; Santa Cruz de Tenerife: Canary Islands, Spain, 2019.
67. Górska-Warsewicz, H.; Czeczotko, M. Perception of Private Labels in Poland. In *Internal Trade in Poland*; Kłosiewicz-Górecka, U., Klonowska, U., Śmigielka, G., Radziukiewicz, M., Kasperec, S., Eds.; Internal Market Institute: Warsaw, Poland, 2017; pp. 167–187.
68. Czeczotko, M.; Kosicka-Gębska, M.; Górska-Warsewicz, H.; Kudlińska-Chylak, A.; Kulykovets, O. The Retail Trade Characteristics As a Part of a Distribution System in Poland. *Przedsiębiorczość Zarządzanie* **2018**, *XIX*, 169–182.
69. Czeczotko, M.; Górska-Warsewicz, H. Consumers' knowledge of own brands in Poland. In *Nauki Społeczno-Ekonomiczne. Nieprzetarte Ścieżki, Czy Utarte Szlaki?* Misiuna, J., Dworakowska, M., Wosiek, R., Eds.; SGH: Warsaw, Poland, 2018; pp. 149–159. ISBN 978-83-8030-256-3.
70. Górska-Warsewicz, H.; Czeczotko, M.; Kudlińska-Chylak, A. Consumer Behaviours towards Private Labels. *Handel Wewnętrzny* **2018**, *2*, 54–64.

71. Kong, H.; West, S. Wma declaration of helsinki–ethical principles for Scientific Requirements and Research Protocols. *World Med. Assoc.* **2013**, *29*–32.
72. Hair, J.F.; Anderson, R.E.; Tatham, R.L.; Black, W.L. *Multivariate Data Analysis*; Pearson Education: Delhi, India, 1998; ISBN 0138948585.
73. Te Liu, H.; Tsauro, R.C. The theory of reasoned action applied to green smartphones: Moderating effect of government subsidies. *Sustainability* **2020**, *12*, 5979. [[CrossRef](#)]
74. Taherdoost, H. Determining sample size; How to calculate survey sample size. *Int. J. Econ. Manag. Syst.* **2017**, *2*, 237–239.
75. Taherdoost, H. Sampling Methods in Research Methodology; How to Choose a Sampling Tech-nique for Research. *Int. J. Acad. Res. Manag.* **2016**, *5*. [[CrossRef](#)]
76. Wójcicki, T. Application of the CAWI method for the holistic support of innovation. *Maint. Probl.* **2012**, *4*, 175–186.
77. Iliyasa, R.; Etikan, I. Comparison of quota sampling and stratified random sampling. *Biom. Biostat. Int. J. Rev.* **2021**, *10*, 24–27.
78. Górska-Warsewicz, H.; Laskowski, W.; Kulykovets, O.; Kudlińska-Chylak, A.; Czacotko, M.; Rejman, K. Food products as sources of protein and amino acids—The case of Poland. *Nutrients* **2018**, *10*, 1977. [[CrossRef](#)]
79. Urbanek, P.; Walińska, E. Private label image branding—conditions, directions and good practices. In *Ekonomia i Zarządzanie w Teorii i Praktyce*; University of Łódź Ed.: Łódź, Poland, 2016; pp. 201–213. (In Polish)
80. Wanjiku, M. *Consumer Perception towards Private Label Brands of Four Key Supermarkets in Kenya*; University of Nairobi: Nairobi, Kenya, 2015; pp. 1–55.
81. Veloutsou, C.; Gioulistanis, E.; Moutinho, L. Own labels choice criteria and perceived characteristics in Greece and Scotland: Factors influencing the willingness to buy. *J. Prod. Brand Manag.* **2004**, *13*, 228–241. [[CrossRef](#)]
82. Nielsen the State of Private Label around the World. Available online: <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/state-of-private-label-around-the-world-nov-2014.pdf> (accessed on 5 October 2020).
83. Garczarek-Bak, U. Retailers’ private label review in Poland and worldwide. *Mark. Rynek* **2016**, *9*, 2–14. (In Polish)
84. Matysik-Pejas, R.; Sowula, M. Perception of private labels by purchasers. *Eur. Policies Financ. Mark.* **2013**, *10*, 475–483. (In Polish)
85. Rybowska, A. Consumer opinion to the products of its private label trade network operating on the Polish market. *Rocz. Nauk. Stowarzyszenia Ekon. Rol. Agrobiznesu* **2014**, *XVI*, 253–258. (In Polish)
86. Valaskova, K.; Kliestikova, J.; Krizanova, A. Consumer Perception of Private Label Products: An Empirical Study. *J. Compet.* **2018**, *10*, 149–163.
87. Prediger, M.; Huertas-Garcia, R.; Gázquez-Abad, J.C. Store flyer design and the intentions to visit the store and buy: The moderating role of perceived variety and perceived store image. *J. Retail. Consum. Serv.* **2019**, *51*, 202–211. [[CrossRef](#)]
88. Jara, M.; Cliquet, G.; Robert, I. A comparison between economic and organic store brands: Packaging as a key factor of store brand equity. *Int. J. Retail Distrib. Manag.* **2017**, *45*, 1298–1316. [[CrossRef](#)]
89. Meliana, V. Private Label Brand as Better Competitive Advantage for Local Retailers. *Bus. Manag. Res.* **2019**, *74*, 170–173.
90. Górska-Warsewicz, H.; Zakowska-Biemans, S.; Czacotko, M.; Swiatkowska, M.; Stangierska, D.; Swistak, E.; Bobola, A.; Szlachciuk, J.; Krajewski, K. Organic private labels as sources of competitive advantage-The case of international retailers operating on the Polish market. *Sustainability* **2018**, *10*, 2338. [[CrossRef](#)]
91. Monnot, E.; Parguel, B.; Reniou, F. Consumer responses to elimination of overpackaging on private label products. *Int. J. Retail Distrib. Manag.* **2015**, *43*, 329–349. [[CrossRef](#)]
92. IPLC Opportunities in the Value-Added Private Label Market. Available online: <https://www.iplc-europe.com/wp-content/uploads/2020/01/IPLC-Research-Report-2018.pdf> (accessed on 13 November 2020).
93. Singh, A.; Singhal, R.K. Emerging third generation private label brands: Retailers’ and consumers’ perspectives towards leading Indian retail chains. *Int. J. Bus. Emerg. Mark.* **2020**, *12*, 179–203. [[CrossRef](#)]
94. Thanasuta, K. Thai consumers’ purchase decisions and private label brands. *Int. J. Emerg. Mark.* **2015**, *10*, 102–121. [[CrossRef](#)]
95. Fall Diallo, M.; Chandon, J.L.; Cliquet, G.; Philippe, J. Factors influencing consumer behaviour towards store brands: Evidence from the French market. *Int. J. Retail Distrib. Manag.* **2013**, *41*, 422–441. [[CrossRef](#)]
96. Kennedy, A.M.; Kapitan, S.; Soo, S. Eco-warriors: Shifting sustainable retail strategy via authentic retail brand image. *Australas. Mark. J.* **2016**, *24*, 125–134. [[CrossRef](#)]
97. Joshi, A.; Kale, S.; Chandel, S.; Pal, D. Likert Scale: Explored and Explained. *Br. J. Appl. Sci. Technol.* **2015**, *7*, 396–403. [[CrossRef](#)]
98. Awang, Z.; Afthanorhan, A.; Mamat, M.; Sultan, U.; Abidin, Z. The Likert scale analysis using parametric based Structural Equation Modeling (SEM). *Comput. Methods Soc. Sci.* **2016**, *4*, 13–21.
99. Sullivan, G.M.; Artino, A.R. Analyzing and Interpreting Data From Likert-Type Scales. *J. Grad. Med. Educ.* **2013**, *5*, 541–542. [[CrossRef](#)] [[PubMed](#)]
100. Bolboacă, S.D.; Jäntschi, L.; Sestras, A.F.; Sestras, R.E.; Pamfil, D.C. Pearson-Fisher Chi-Square Statistic Revisited. *Information* **2011**, *2*, 528–545. [[CrossRef](#)]
101. Singhal, R.; Rana, R. Chi-square test and its application in hypothesis testing. *J. Pract. Cardiovasc. Sci.* **2015**, *1*, 69. [[CrossRef](#)]
102. Nihan, S.T. Karl Pearsons chi-square tests. *Educ. Res. Rev.* **2020**, *15*, 575–580. [[CrossRef](#)]
103. Sedgwick, P. Spearman’s rank correlation coefficient. *BMJ* **2014**, *349*, 7327. [[CrossRef](#)] [[PubMed](#)]
104. Hauke, J.; Kossowski, T. Comparison of values of pearson’s and spearman’s correlation coefficients on the same sets of data. *Quaest. Geogr.* **2011**, *30*, 87–93. [[CrossRef](#)]
105. Dubes, R.; Jain, A.K. Clustering Methodologies in Exploratory Data Analysis. *Adv. Comput.* **1980**, *19*, 113–228.

106. Wilks, D.S. Cluster Analysis. *Int. Geophys.* **2011**, *100*, 603–616.
107. Leonard, S.T.; Droegge, M. The uses and benefits of cluster analysis in pharmacy research. *Res. Soc. Adm. Pharm.* **2008**, *4*, 1–11. [[CrossRef](#)] [[PubMed](#)]
108. Maimon, O.; Rokach, L. Clustering Methods. In *Data Mining and Knowledge Discovery Handbook*; Maimon, O., Rokach, L., Eds.; Springer: Boston, MA, USA, 2005; pp. 321–352. ISBN 978-0-387-25465-4.
109. Omran, M.G.H.; Engelbrecht, A.P.; Salman, A. An overview of clustering methods. *Intell. Data Anal.* **2007**, *11*, 583–605. [[CrossRef](#)]
110. Dharmarajan, A.; Velmurugan, T. Applications of partition based clustering algorithms: A survey. In Proceedings of the 2013 IEEE International Conference on Computational Intelligence and Computing Research, Enathi, India, 26–28 December 2013.
111. Ayram, S.; Kainen, T. *Introduction to Partitioning-Based Clustering Methods with a Robust Example*; Software and Computational Engineering; University of Jyväskylä: Jyväskylä, Finland, 2006; Volume 35, ISBN 951392467X.
112. Morissette, L.; Chartier, S. The k-means clustering technique: General considerations and implementation in Mathematica. *Tutor. Quant. Methods Psychol.* **2013**, *9*, 15–24. [[CrossRef](#)]
113. El Salario Mínimo en España no Varía Este Año. Available online: Expansion/Datosmacro.com (accessed on 7 April 2020).
114. Desempleo de España. Available online: Expansion/Datosmacro.com (accessed on 12 January 2021).
115. Tenerife | El Aumento del Desempleo en la Provincia Hace Crecer la Tasa de Paro Regional Hasta el 21%. Available online: <https://eldigitalsur.com/tenerife/tenerife-aumento-del-desempleo-la-provincia-crecer-la-tasa-paro-regional-21/> (accessed on 10 April 2021).
116. IRI. Share of Private Label Price Level in Europe 2018 by Country. Available online: <https://www.statista.com/statistics/383455/private-label-price-level-by-european-countries/> (accessed on 22 May 2020).
117. Eales, T. Private Label in Western Economies. Available online: <https://www.iriworldwide.com/en-GB/News/Media-Coverage/Private-label-in-Europe-Tailor-your-growth-strategy-per-country,-says-IRI> (accessed on 22 May 2020).
118. Abotorabi, O. Private Label in Western Economies IRI Special Report. Available online: https://www.iriworldwide.com/site/IRI/media/IRI-Clients/International/IRI-PL-Report_July-2018.pdf (accessed on 12 May 2020).
119. Bergès-Sennou, F.; Bontemst, P.; Réquillart, V. Economies of private labels: A survey of literature. *J. Agric. Food Ind. Organ.* **2004**, *2*, 41–65.
120. Ter Braak, A.; Dekimpe, M.G.; Geyskens, I. Retailer private-label margins: The role of supplier and quality-tier differentiation. *J. Mark.* **2013**, *77*, 86–103. [[CrossRef](#)]
121. Faigen, G.; Ebner, T. Private Brands: Low Price Alternative or Strategic Asset? 2018. Available online: <https://www.oliverwyman.com/our-expertise/insights/2018/jan/boardroom/dramatic-differentiation/private-brands--low-price-alternative-or-strategic-asset.html> (accessed on 20 June 2021).
122. Statistica.com Sales Share of Private Labels Food in USA in 2019, by Category. Available online: [Statistica.com/statistics/1100038/sale-share-of-private-label-food-us-by-category/](https://www.statista.com/statistics/1100038/sale-share-of-private-label-food-us-by-category/) (accessed on 25 May 2020).
123. IRI Share of Private Label Value in Spain in 2018, by Category. Available online: <https://www.statista.com/statistics/410296/private-label-value-share-by-product-category-spain/> (accessed on 14 December 2020).
124. Kowalska, M. Development and significance of private label in Poland. *Stud. Pr. WNEiZ* **2015**, *39*, 353–365.
125. Majewska, M. How do We Perceive Private Labels? Prospects for the Development of Private Label Market in Poland. Available online: <https://www.qbusiness.pl/uploads/Raporty/onboardmarki.pdf> (accessed on 20 April 2020).
126. DelVecchio, D. Consumer perceptions of private label quality: The role of product category characteristics and consumer use of heuristics. *J. Retail. Consum. Serv.* **2001**, *8*, 239–249. [[CrossRef](#)]
127. Aaker, D.A. *Managing Brand Equity: Capitalizing on the Value of a Brand Name*; Free Press: New York, NY, USA, 1991.
128. Raiya Umar, T.; Nik Kamariah Nik Mat, P.; Alfa Tahir, F.; Mohammed Alekam, J. The Practicality and Application of Aaker’s Customer Based Brand Equity Model in the Nigerian Banking Sector. *Am. J. Econ.* **2012**, *2*, 149–152. [[CrossRef](#)]
129. Olbrich, R.; Jansen, H.C.; Hundt, M. Effects of pricing strategies and product quality on private label and national brand performance. *J. Retail. Consum. Serv.* **2017**, *34*, 294–301. [[CrossRef](#)]
130. Aouina Mejri, C.; Bhatli, D. CSR: Consumer responses to the social quality of private labels. *J. Retail. Consum. Serv.* **2014**, *21*, 357–363. [[CrossRef](#)]
131. Wee, C.; Ariff, M.; Zakuan, N.; Tajudin, M.; Ismail, K.; Ishak, N. Consumers perception, purchase intention and actual purchase behavior of organic food products. *Rev. Integr. Bus. Econ. Res.* **2014**, *3*, 378.
132. Bryła, P. The perception of EU quality signs for origin and organic food products among Polish consumers. *Qual. Assur. Saf. Crop. Foods* **2017**, *9*, 345–355. [[CrossRef](#)]
133. Claessen, F. Effect of Organic Labeling on Private Label Food Products. In *How Does the Presence of an Organic Label Affect the Purchase Intention of Private Label Food Products, Taking Perceived Quality, Perceived Risk and Familiarity into Account? (Working Paper)*; University of Amsterdam: Amsterdam, The Netherlands, 2017.
134. Yang, M.; Al-shaabani, S.; Nguyen, T.B. Consumer Attitude and Purchase Intention towards Organic Food A quantitative study of China Linnæus University. *J. Consum. Behav.* **2014**, *6*, 1–67.
135. Pedersen, S.; Aschemann-Witzel, J.; Thøgersen, J. Consumers’ evaluation of imported organic food products: The role of geographical distance. *Appetite* **2018**, *130*, 134–145. [[CrossRef](#)] [[PubMed](#)]
136. Cachero-Martínez, S. Consumer Behaviour towards Organic Products: The Moderating Role of Environmental Concern. *J. Risk Financ. Manag.* **2020**, *13*, 330. [[CrossRef](#)]

137. Ntasis, L.; Koronios, K.; Pappas, T. The impact of COVID-19 on the technology sector: The case of TATA Consultancy Services. *Strateg. Chang.* **2021**, *30*, 137–144. [[CrossRef](#)]
138. Kalogiannidis, S. Covid Impact on Small Business. *Int. J. Soc. Sci. Econ. Invent.* **2020**, *6*, 387–391. [[CrossRef](#)]
139. Chakkambath, D.R.S.; Jose, A.M. Post Covid impact of E-commerce on consumers. *Int. J. Appl. Res.* **2021**, *7*, 13–17. [[CrossRef](#)]
140. Ojo, D.; Delaney, M. *Sustainable Finance, Current and Future Implications for Banks and Monetary Policy: Assessing COVID Impacts*; University Library of Munich: Munich, Germany, 2021.
141. Lagos, D.G.; Poulaki, P.; Lambrou, P. COVID-19 and Its Impact on Tourism Industry. In *Advances in Experimental Medicine and Biology*; Springer: Berlin/Heidelberg, Germany, 2021; Volume 1318, pp. 815–824.
142. Orîndaru, A.; Popescu, M.-F.; Căescu, Ş.-C.; Botezatu, F.; Florescu, M.S.; Runceanu-Albu, C.-C. Leveraging COVID-19 Outbreak for Shaping a More Sustainable Consumer Behavior. *Sustainability* **2021**, *13*, 5762. [[CrossRef](#)]
143. Dimitropoulos, P.; Koronios, K. *Corporate Environmental Responsibility, Accounting and Corporate Finance in the EU; CSR, Sustainability, Ethics & Governance*; Springer International Publishing: Cham, Switzerland, 2021; ISBN 978-3-030-72772-7.